

# Glide path design

## Why “retirement” shouldn’t mean “decline”

### IN BRIEF

*The allocation to equity risk assets should decline through the working years, reach a glide path low at or around the retirement date and remain static over the course of retirement.*

This is our view, based on the fundamental principles driving our approach to glide path design; newly available, more robust data on spending and withdrawal patterns in the years “near” (just prior to and early in) retirement; and what we see as the tug-of-war between the willingness vs. the capacity to take on market risk during the remaining retirement years.

- **Early in the working years**—when account balances (dollars at risk) are low and there is considerable time to recover from a market downturn—the capacity to take on market risk is high. The allocation to equity risk assets should start at a high point and gradually decline as retirement approaches.
- **In the critical near-retirement years**—account balances *peak*, and so do the potential dollar losses associated with a market downturn. These losses can be amplified if they coincide with ill-timed spending and withdrawals requiring asset liquidations—and our latest data and analysis confirm that cash flows in this period continue to be more volatile than people may expect. Allocations to equity risk assets should decline to a glide path *low*.
- **In retirement**, our analysis indicates that two equal but opposing dynamics play out: the *willingness* to bear market risk continues to *decline* as retirees age, while the *capacity* to take on market risk *improves*—at roughly the same pace—as account balances decline. Keeping these two forces equally balanced implies a static glide path in retirement.

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### The shape of target date fund (TDF) glide paths in the retirement years is a subject of renewed attention among asset managers, defined contribution (DC) plan sponsors and their financial professionals /consultants.

It’s no wonder: waves of retiring baby boomers are foregoing paychecks for plan payments—distributions from DC balances accumulated during their working lives. Thirty years ago, DC plans were a nice-to-have supplement to defined benefit (DB) pension plans; today, for many members of the U.S. workforce, they are a critical source of retirement income that will need to be spent down. Importantly, over 78% of DC plans with qualified default investment alternatives (QDIAs) have chosen a TDF as their QDIA.<sup>1</sup>

What should the glide path look like as participants move from accumulating asset balances to spending down those balances in retirement? Should the allocation to equity risk assets continue to decline, increase or plateau?

<sup>1</sup> J.P. Morgan Plan Sponsor Research 2019.

## A CLOSER LOOK AT THE GLIDE PATH NEAR AND IN RETIREMENT

Our view has always been that the allocation to equity risk assets should gradually decline through the working years, reach its lowest point at or near retirement and remain static in retirement.

Our basic tenets have not changed. We define success by the number of participants who retire with at least the assets they need for a minimum level of income replacement; we take the stresses of real-life participant saving and withdrawal behavior into account; and we rely on well-diversified glide paths to manage a range of participant-experienced risks associated with DC investing, including market, event, longevity, inflation and interest rate risks.<sup>2</sup>

However, in our ongoing effort to contribute to and benefit from new insights and developments in target date strategies, we have revisited our approach to glide path construction, focusing on the near-retirement and subsequent in-retirement years. In doing so, we incorporate a new, robust dataset from Chase on household spending, including the near-retirement years, supplementing the data on participant behavior that has traditionally informed our glide path approach. In addition, we quantify and evaluate the implications of two opposing dynamics: the *willingness* and the *capacity* to take on risk during retirement. Our latest analyses further validate our thinking on glide path design.

### Pre-retirement: Allocation to equity risk assets should start out high and gradually decline

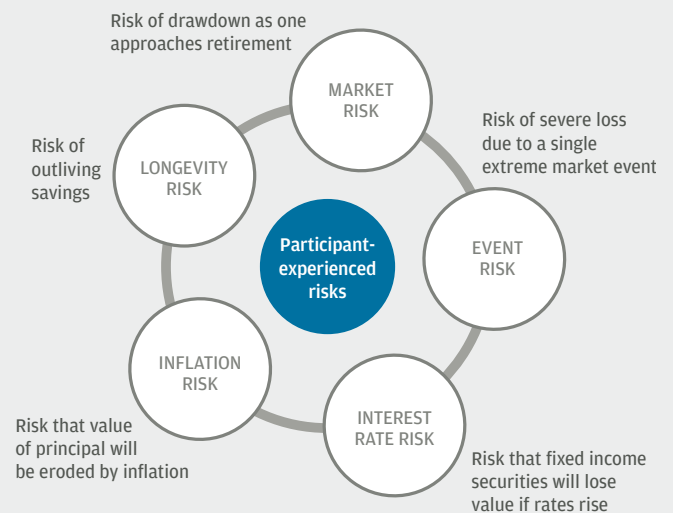
Few would argue with a gradually declining equity glide path prior to retirement. Early in the working years—when account balances (dollars at risk) are low and the investment horizon is long—the capacity to bear market risk is high. Allocations to equity risk assets should start at a high point and gradually decline toward the retirement date. In fact, participants themselves seem to agree: based on observed self-directed allocations for participants of different ages, their willingness to take on risk appears to be greatest in the early employment years, declines throughout their working lives and—as we will see—continues to decline in their retirement years.<sup>3</sup>

We know from our research that loans, contribution holidays and pre-retirement withdrawals do occur on the road to retirement, and can amplify market risk—for example, taking out a sizeable retirement account loan at a market bottom and paying it back at a market top.<sup>4</sup> Our approach to glide path design takes these behaviors into account when structuring the equity risk allocation across the lifecycle.

## FUNDAMENTAL PRINCIPLES OF OUR GLIDE PATH APPROACH\*

1. We define success as maximizing the number of participants who reach at least the minimum level of income replacement at retirement.
2. Glide paths must be designed to withstand the stresses of real-life participant saving and withdrawal patterns.
3. An effective glide path dynamically manages the multifaceted risks of DC investing. Prioritizing one risk over another can have unintended consequences. For example, an overly conservative portfolio intended to minimize the frequency and magnitude of portfolio losses may increase the risk of participants outliving their savings.
4. Participant-experienced risks are best managed with a well-diversified glide path allocation strategy. For example, as the fixed income allocation increases, increasing the allocation to high yield and emerging market debt has the potential to enhance returns; gradually adding TIPs and commodities as retirement approaches can help address inflation concerns.

### DYNAMICALLY MANAGING THE MULTITUDE OF PARTICIPANT-EXPERIENCED RISK



Source: J.P. Morgan Asset Management. For illustrative purposes only.  
\*Ready! Fire! Aim?

<sup>2</sup> For a detailed description of our approach to glide path construction, see our previous Ready! Fire! Aim? publications.

<sup>3</sup> J.P. Morgan retirement research; data as of 2015, aggregated among participants who were not defaulted into an asset allocation product.

**At or near retirement: Risks associated with a market downturn peak—equity risk assets should be at a glide path low**

As participants transition from the accumulation to the decumulation phase, the adverse effects of a market downturn reach their peak:

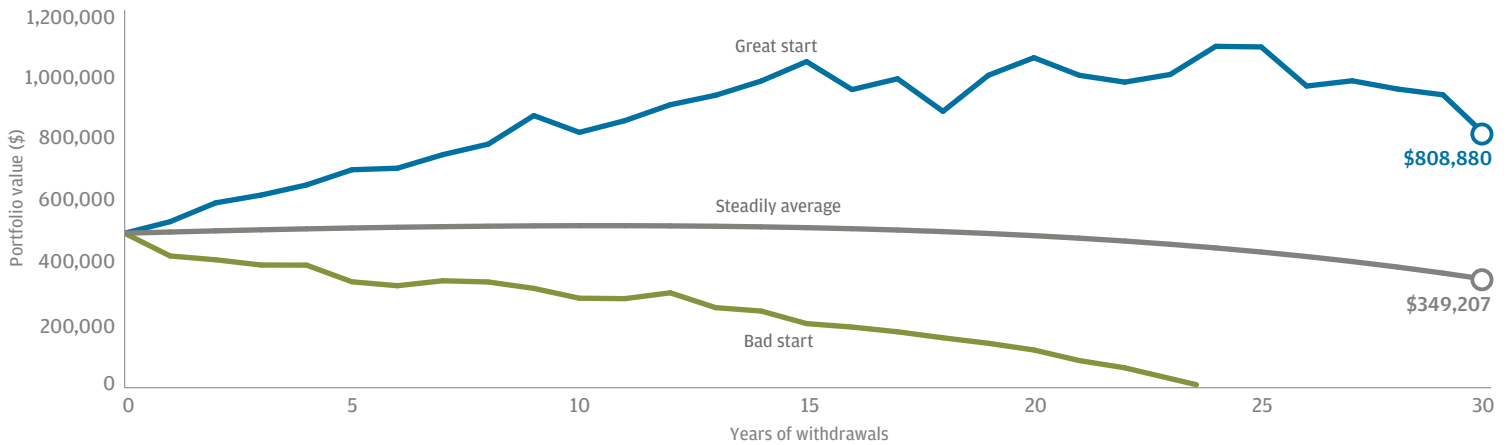
- Regular paychecks no longer fund spending; preserving income-generating assets is essential.
- After years of accumulation, DC account balances—dollars at risk—have reached a high point.

- Sequencing of returns risk is at a high: a downturn in the early retirement years can significantly decrease the asset base and have compounding effects for years to come. As net spending continues to deplete balances, it becomes more difficult to recover from market losses, even with stronger returns in the later retirement years (**Exhibit 1**).
- Participant cash flows are more volatile and varied in the near-retirement years than one might think. Our earlier research on participant withdrawals showed that 14% of those over age 59½ withdraw, on average, 30% of their DC plan assets.<sup>5</sup> This volatility can intensify the risks associated with a market downturn near

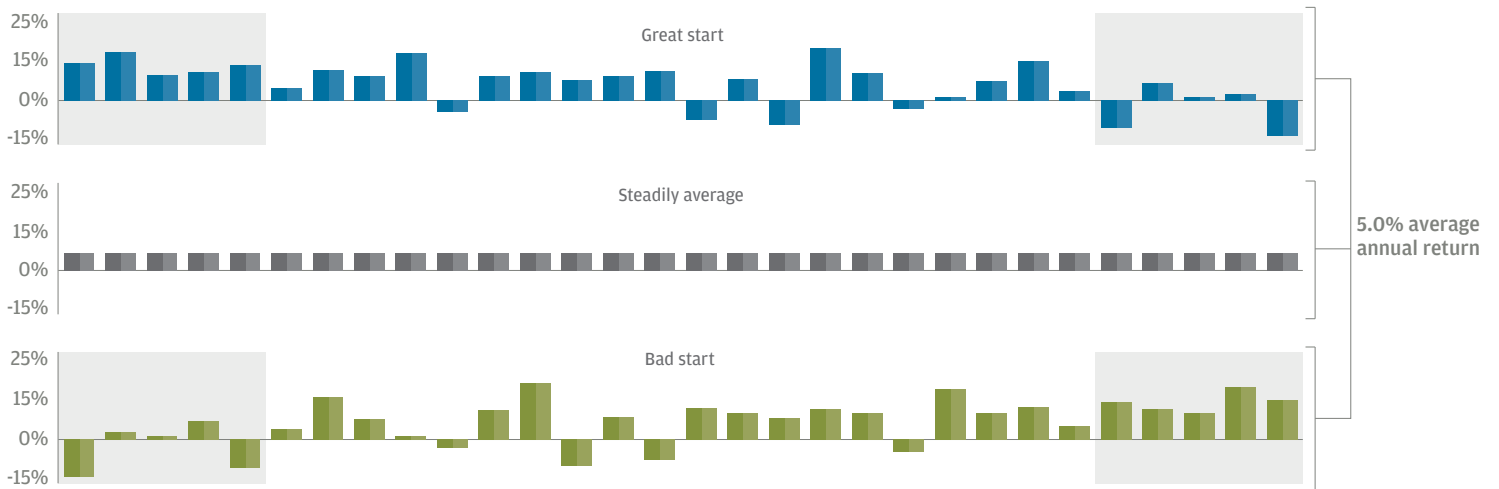
**Average returns in retirement matter much less than the sequence of those returns. Poor performance in the early (vs. later) years can have a far more destructive impact on a portfolio’s ending value**

**EXHIBIT 1A: VALUE OF VARIOUS PORTFOLIOS WITH EQUAL AVERAGE RETURNS**

Withdrawal is 4% of initial portfolio value, annually adjusted for inflation of 2.25%; Annual return = 5%



**EXHIBIT 1B: ANNUAL RETURNS IN RETIREMENT**



Source: J.P. Morgan Asset Management. For illustrative purposes only. Average return is the compounded annualized rate.

<sup>4</sup> Ready! Fire! Aim?, 2015.

retirement if large spending withdrawals result in assets being liquidated at reduced valuations. Our latest research using Chase data on spending validates our initial assumptions: spending in the near-retirement years is volatile and varied—to a degree that can't be ignored when structuring glide path allocations in this critical period.

If the risks related to market downturns peak at or near retirement, it follows that equity risk assets should decline to a low at this point.

### In retirement: Why the allocation to equity risk assets should remain static

When constructed in line with our key principles (see “Fundamental principles of our glide path approach”), the near-retirement allocation is well diversified and balanced: conservative enough to address market drawdown risks at their peak in the lifecycle, while providing sufficient market exposure to balance the risk of participants’ outliving their assets. We believe this near-retirement allocation is strategically appropriate in the remaining retirement years as well. Market developments, of course, present challenges and opportunities where tactical allocation and active management skills can add value.

#### THE WILLINGNESS VS. CAPACITY TO TAKE ON MARKET RISK—FURTHER PERSPECTIVE

As a growing share of the workforce becomes increasingly dependent on DC account balances to fund their retirements, the research, discussion and debate about the shape of the glide path in retirement is sure to intensify.

At the core of this debate among TDF providers are two risk dynamics that act with opposing but roughly equivalent force in the retirement years: (a) the willingness and (b) the capacity to take on market risk.

We explain these two dynamics and their relevance for glide path allocations. In **Exhibit 2**, we quantify and compare them, illustrating why we believe glide paths that *equally balance these two forces* near retirement should maintain a static allocation in retirement:

- **Willingness to take on market risk** is defined here as the average self-directed allocation to equity risk assets of participants at a given age. Using these estimates, we find that risk tolerance declines with age, prior to and in retirement, leading us to agree with the standard industry argument that, all else being equal, this one element would support a reduction in the equity component of the glide path in retirement. But, all else is *not* equal...

## UNDERSTANDING REAL-WORLD SPENDING BEHAVIORS

Our analysis of participant behavior has relied on a powerful participant dataset, encompassing roughly 400 DC plans with approximately 2.2 million participants, including retirees who remained in these plans.\* Now, we are able to supplement this information with a source providing even more robust data on spending in retirement.

Almost half of all households in the U.S. have a relationship with Chase.\*\* Access to this data gives us insight into real-world spending behaviors, to and in retirement, that is unavailable to other organizations.

### OUR RETIREMENT SPENDING ANALYSIS AT A GLANCE

- We started with 31 million households. By looking at changes in the mix of labor and retirement income, we determined who had likely retired during the study period, October 2012 to December 2016.
- We then narrowed our focus to only those who had retired and appeared to do most of their spending via Chase. This left us with a robust dataset of nearly 60,000 households for our analysis.

\* J.P. Morgan retirement research; as of 2015.

\*\* JPMorgan Chase & Co. 2017 Annual Report. Information that would have allowed identification of specific customers was removed prior to the analysis.

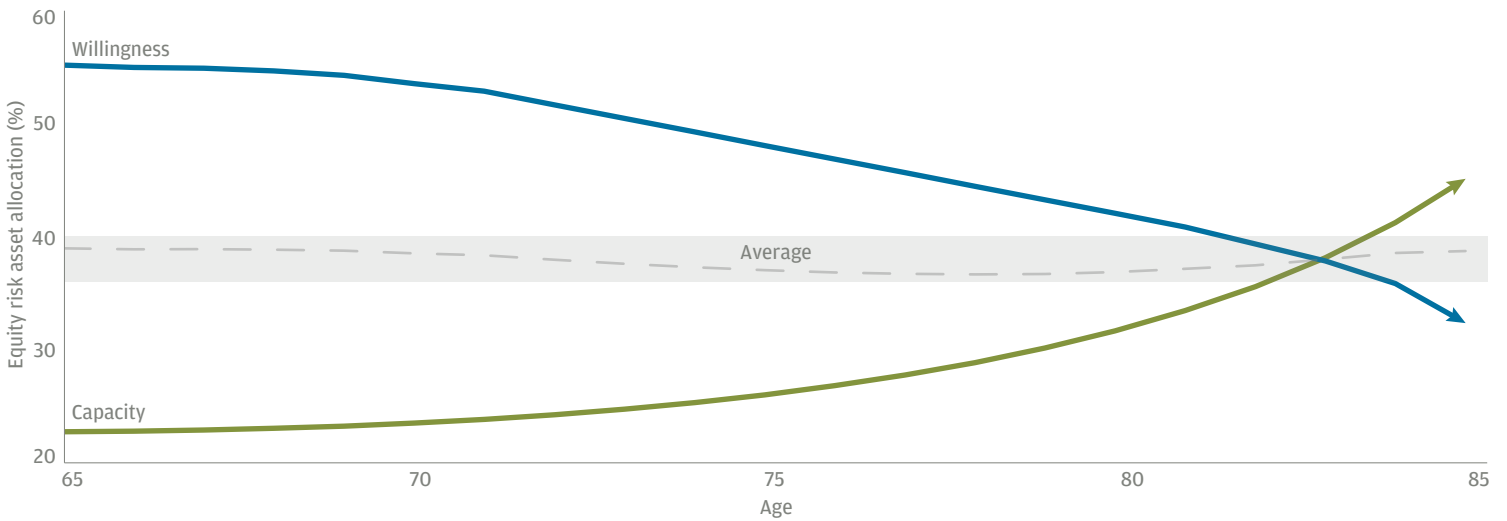
- **Capacity to take on market risk** (which, as discussed, declines as dollars at risk increase) reverses direction in retirement, increasing as account balances decline. For this analysis, capacity to take on market risk is defined as the allocation to equity risk assets consistent with a 5%-or-less chance of losing the equivalent of one year’s annual spending in retirement (a fixed \$5,000 amount, adjusted for inflation). That calculated allocation rises through retirement because as account balances decline, a \$5,000 loss implies a higher level of risk-taking.

As Exhibit 2 illustrates, in the early retirement years, the willingness to take on market risk is considerably higher than the capacity to bear it. In retirement, willingness declines as capacity increases—at roughly the same pace. Equally balancing these two allocation measures at each age level results in an essentially static allocation to equity risk assets across the retirement years (as depicted by the shaded horizontal band in Exhibit 2).

<sup>5</sup> J.P. Morgan retirement research; as of 2015.

Two roughly equal but opposing dynamics imply a static allocation to equity risk assets in retirement

EXHIBIT 2: THE WILLINGNESS\* VS. THE CAPACITY\*\* TO TAKE ON RISK IN RETIREMENT



Source: J.P. Morgan retirement research; analysis as of March 31, 2018, based on data as of 2015. Values have been slightly smoothed for illustrative purposes.

\* Willingness to take on risk is defined as the population-weighted average allocation (%) to equity risk assets for retired participants at various ages (includes equity funds, individual stocks and equity asset allocation funds for participants with less than 100% allocated to an asset allocation fund).

\*\* Capacity to take on risk is defined as the allocation to equity risk assets (%) consistent with a 5% chance of losing the equivalent of one year’s annual spending in retirement (a fixed \$5,000 amount; starting portfolio value is \$100,000).

Why then, might some glide paths continue to decrease the allocation to equity risk assets in the retirement years? In our view, there are two potential explanations:

- A higher equity risk allocation (above the shaded band) implies that participants are taking on too much market risk near retirement, when the capacity to bear that risk is at a low. As seen in Exhibit 1, losses early (vs. later) in retirement can have a more devastating impact on ending portfolio values. A glide path’s continued decline in retirement can be seen as a delayed attempt to adjust for this imbalance.
- A lower equity risk allocation (below the shaded band) that continues to decline in retirement suggests a glide path that overemphasizes participants’ unwillingness to take on risk at and in retirement. Allocations in retirement remain well below participants’ level of risk tolerance—increasing the risk that assets will run out too soon. There are, as a result, very few glide paths that are both relatively conservative at retirement and decline in retirement.

The glide path approach should equally balance the willingness and capacity to take on risk in the near-retirement years and, if it does, remain static in retirement. When constructed in line with our fundamental glide path principles, the near-retirement allocation meets this criteria.

Conclusion

We believe our latest analysis of spending near retirement and the implications of the two opposing dynamics—the willingness vs. the capacity to take on market risk—further validate a glide path approach in which the allocation to equity risk assets reaches a low point at or near retirement and remains at that level through retirement.

As the number of participants using TDFs as a convenient, professionally managed approach to allocating retirement assets expands, we are focusing our research not only on managing assets in retirement but also on spending behavior and decumulation strategies in the retirement years. Stay tuned.

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